

CLAIMS

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1. A hand-powered, hand-held food processor comprising;
a cup for holding the food to be processed and having a rotatable drive shaft;
a food processing arm removably drivingly engaged to the drive shaft,
a cover removably mounted on the cup;
a hand-powered motor for driving the drive shaft, the hand-powered motor having a one way drive transmission, a pulley connected to the drive transmission, a pull cord having multiple wraps encircling the pulley whereby a pull on the pull cord by the user will rotate the pulley and thus the drive shaft for a long duration at a high one way rate of speed, and a return spring for retracting the extended pull cord to its original multiple wraps around the pulley.

2. The food processor of claim 1 wherein the cup has an axial end surface, a long rib attached to the axial end surface for temporarily holding food in the food processor from moving around the cup, and said food processing arm is an elastomeric flexible arm connected to the spindle whereby rotation of the spindle will move the elastomeric arm past the horizontal rib to rub the skin off of the food to be processed while the food is held by the horizontal rib.

3. The food processor of claim 1 wherein the cup has a cylindrical side surface, a stop block connected to the side surface for impeding the free movement of the food to be processed causing the food to be deflected into the path of the food processing arm.

4. The food processor of claim 3 wherein the food processing arm includes a forward facing sharpened blade for chopping the food in the cup.

5. The food processor of claim 3 wherein the cup has an axial end surface, a long rib attached to the axial end surface for temporarily holding food in the food

processor from moving around the cup, and said food processing arm is an elastomeric flexible arm connected to the spindle whereby rotation of the spindle will move the elastomeric arm past the horizontal rib to rub the skin off of the food to be processed while the food is held by the horizontal rib.

6. The food processor of claim 2, the elastomeric arm having a lower end, the horizontal rib having an upper end, and wherein the space between the elastomeric arm lower end and the horizontal rib upper end rib is no greater than about 0.050-0.150 inches so that the food is simultaneously engaged between the arm and the rib.

7. The food processor of claim 2 wherein the elastomeric arm is made of a material that has a durometer in the range of Shore A 60 and Shore A 100.

8. The food processor of claim 6 wherein the elastomeric arm is made of a material that has a durometer in the range of Shore A 80 and Shore A 82.

9. The food processor of claim 4, including a second blade spaced axially from the first blade, the stop block being located between the two blades and radially outward from the two blades

10. The food processor of claim 1, said drive transmission including a ratchet wheel having a plurality of evenly circumferentially spaced drive teeth, a drive shaft having a plurality of evenly circumferentially spaced driven teeth engageable by the teeth on the ratchet wheel to rotate the drive shaft, and a disc spring between the ratchet wheel and the drive shaft to allow the ratchet wheel to reverse its direction out of driving engagement with the drive shaft.

11. The food processor of claim 2, said elastomeric arm having a roughened forward surface gripping the skin of the food being held by the horizontal rib to enhance the peeling action of the arm and rib.

12. The food processor of claim 1, said cup housed in a drive housing, the drive housing holding the pulley, and portion of the pull cord entrained around the pulley, the housing having a gasket and a locking collar, the locking collar having a plurality of circumferentially spaced locking grooves, the cover having a plurality of depending ribs, the ribs adapted to fit into the grooves to lock the cover over the cup.

13. The food processor of claim 1 wherein the cup has a cylindrical side surface, a stop block connected to the side surface for impeding the free movement of the food to be processed causing the food to be deflected into the path of the food processing arm and said food processing arm is an elastomeric flexible arm connected to the drive shaft whereby rotation of the drive shaft will move the elastomeric arm against the food to be processed to rub the skin off of the food to be processed.

14. The food processor of claim 13 wherein the elastomeric arm has a roughened forward facing surface in the direction of rotation.

15. The food processor of claim 13 wherein the elastomeric arm has a sticky surface facing forward in the direction of rotation.

16. The food processor of claim 14 wherein the elastomeric arm roughened surface facing forward in the direction of rotation is textured.

17. The food processor of claim 1 wherein the food processing arm is elastomeric and flexible and has a roughened surface facing forward in the direction of rotation.

18. The food processor of claim 1, said drive transmission having a ratchet member having circumferentially spaced teeth, a drive shaft having mating teeth to engage the teeth on the ratchet member in one direction of rotation but slide over the teeth in the opposite direction of rotation, a disc spring urging the ratchet teeth lightly into engagement with the spindle shaft teeth.

19. The food processor of claim 18, including a second arm axially spaced from the first arm, the forward facing surfaces of the arms being sharpened blades.

20. A food processor for peeling food products having a removable skin, such as garlic cloves, the food processor having a food holding cup, a rotatable flexible elastomeric arm, means for rotating the arm within the cup, said cup having a cylindrical sidewall, a stop block on the sidewall for interrupting the free spinning rotating of food in the cup, whereby the food in the cup is rubbed by the rotating elastomeric flexible arm to rub the skin off the food to be processed.

21. The food processor of claim 20 wherein the arm has a durometer of between Shore 60 A (relatively soft) and Shore 100 A (relatively stiff).

22. The food processor of claim 21 wherein the arm has a durometer of between Shore 80 A and Shore 82 A.

23. The food processor of claim 20 wherein the means for rotating the arm is an electric motor.

24. The food processor of claim 20 wherein the means for rotating the arm is a manual pull cord motor.

25. The food processor of claim 20 wherein the elastomeric arm has a roughened forward facing surface in the direction of rotation.

26. The food processor of claim 25 wherein the elastomeric arm roughened forward surface is textured.

27. The food processor of claim 20 wherein the elastomeric arm forward surface is sticky.

28. The food processor of claim 26 wherein the texture is grooves spaced axially along the arm.

29. The food processor of claim 20 including a second elastomeric arm axially spaced from the first elastomeric arm, the stop block being located along the space between the two arms.

30. The food processor of claim 29 wherein each arm has a forward convex shape in plan view in the direction of rotation.

31. The food processor of claim 29 wherein the elastomeric arms each have a roughened forward facing surface in the direction of rotation, and wherein the arm has a durometer of between Shore 60 A (relatively soft) and Shore 100 A (relatively stiff).

32. The food processor of claim 31 wherein the arms have a durometer of between Shore 80 A and Shore 82 A.

33. The food processor of claim 31 wherein each arm is convex in plan view in the direction of rotation, and the length of one of the arms is longer than the other arm.

34. The food processor claim 31 wherein the means for rotating the arms is a manual unidirectional pull motor drive.

35. The food processor of claim 20, the cup having an end surface, further including a long rib on said end surface.

36. The food processor of claim 31, the cup having an end surface, further including a long rib on said end surface.

37. A hand-held food processor comprising a housing having a cup for food to be processed, a food processing arm attached to a drive shaft rotatably mounted in the cup, means for rotating the drive shaft for moving the arm in the cup to process food in the cup, and a cover removably attached to the cup, the cover having a uniform outer periphery to serve as a base when the cover is removed from the cup thereby allowing the contents of the processor to fall into the cover when the cover is positioned beneath the cup and then the cup removed to hold the contents of the cup on a table or counter top.